

Appendix B

CURRENT FLORIDA FOREVER ELIGIBLE PROJECTS

INTRODUCTION

Information for the Comprehensive Everglades Restoration Plan (CERP) projects is included in the Project Management Plan for each project. On the included CD is the approved version of the PMP or latest draft, available at the time of this publication. The list below will link to the plans themselves. Current approved versions of all CERP PMPs, as well as in progress drafts are available at www.evergladesplan.org. Information on the Kissimmee River Restoration is included following this list:

Comprehensive Everglades Restoration Plan Projects

Full Scale Projects

- C-111 Spreader Canal
- C-43 Basin Storage Reservoir
- WCA 3A/3B Decompartmentalization and Sheetflow Enhancement, Part 1
- Everglades Agricultural Area Storage Reservoir, Part 1
- Florida Keys Tidal Restoration
- Lake Okeechobee Watershed
- Southern Golden Gates Estates Hydrologic Restoration

Pilot Projects

- Lake Okeechobee ASR Pilot
- Lake Belt In-Ground Reservoir Pilot
- Caloosahatchee ASR Pilot
- Hillsboro ASR Pilot
- L-31N Seepage Management Pilot
- Wastewater Reuse Pilot

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KISSIMMEE REGION

Description of Water Body

The Kissimmee Watershed covers approximately 3000 square miles of south-central Florida and is the largest watershed providing surface water to Lake Okeechobee (**Figure B-1**). The name “Kissimmee” is derived from a Calusa Indian word that means “long water”. The watershed is located in south-central Florida between the city of Orlando and Lake Okeechobee. Lake Okeechobee is the major source of freshwater to the residents of South Florida (**Figure B-2**). The watershed is about 105 miles long and has a maximum width of 35 miles.



Figure B-1. Kissimmee Location Map.

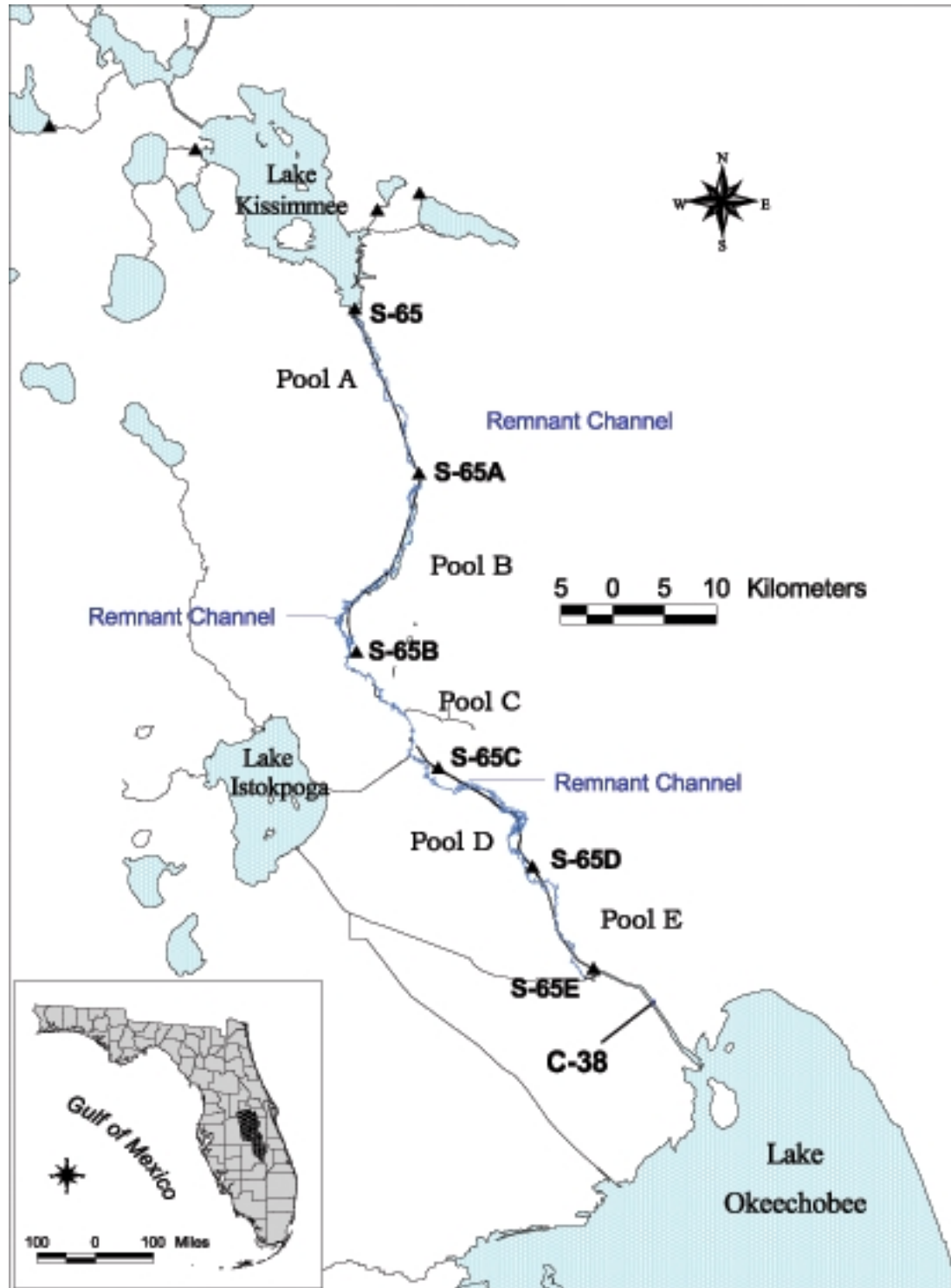


Figure B-2. Kissimmee River System.

The Kissimmee Watershed covers Orange, Osceola, Polk, Highlands and Okeechobee counties. It is divided into two parts:

1. The Upper Basin, which covers 1,633 square miles includes Lake Kissimmee and the East and West chain of lakes areas in Orange and Osceola counties.
2. The Lower Basin covers 758 square miles, which includes the tributary watershed of the Kissimmee River between the outlet in Lake Kissimmee and Lake Okeechobee.

Water Use in the Kissimmee Watershed

Water use is divided into urban and agriculture (**Table B-1**). Agriculture is the largest existing and largest projected water user within the basin.

Table B-1. Kissimmee Watershed Water Demands.

Land Use	1995	2020	Percent Change
Urban	35,602	68,153	76
Agricultural	112,668	173,995	54
Total Water Demand	148,270	242,148	63

Agency Jurisdictions

Federal Jurisdiction on the Kissimmee Watershed involves the regulatory responsibilities of the United States Army Corps of Engineers (USACE), the United States Environmental Protection Agency (USEPA) and the United States Fish and Wildlife Service (USFWS). The USACE is responsible for prescribing the operational criteria and the regulation schedules for the Central and Southern Florida (C&SF) Flood Control Project. Their primary regulatory functions include operation and maintenance of the levees and major outlet works, dredge and fill activities, maintaining navigable waters, cleanup of pollution spills and the protection of endangered species.

The USEPA is responsible for protection of the environmental resources of the Kissimmee Watershed.

State agencies involved with the management and regulation of the Kissimmee River Basin are primarily, the Florida Department of Environmental Protection (FDEP) and the Florida Fish and Wildlife Conservation Commission (FWC). Their jurisdictions include the protection of water quality, wetland resources, fisheries and wildlife resources.

At the regional level, the SFWMD and two regional planning councils have jurisdiction within the Kissimmee River Basin planning area. The SFWMD's authority is to manage and protect the water resources in a 16-county region. Regional Planning

Council jurisdictions are assigned by county. The Central Florida Regional Planning Council has jurisdiction within Okeechobee and Highlands counties. The East Central Florida Regional Planning Council has jurisdiction within Polk and Osceola counties. Regional Planning Councils have responsibilities to develop regional comprehensive policy plans for protection of water resources within the planning area and provide technical assistance to local governments and evaluate the impacts anticipated from development of regional on regional resources.

The local governments listed below have the authority to control land use in the Kissimmee Watershed through their comprehensive plans and land development regulations. Sectors that exist at the local government level include planning, building, zoning and regulatory departments, water and sewer utilities, city and police departments, and soil, water and conservation districts.

Local counties in the Kissimmee Watershed include: Highlands, Okeechobee, Osceola, Polk and Orange.

Land Use in the Kissimmee Watershed

The existing land use in the Kissimmee Watershed planning area is generally more urban in the north than in the south, as shown in **Table B-2**. Continued urbanization is anticipated in the north, while in the south, agricultural acreage is projected to increase.

Table B-2. Acreage and Percentage of Land Use by County Area.

Land Use	Orange	Osceola	Polk	Highlands	Okeechobee	Glades	Kissimmee Watershed
Agriculture	31,513 (17%)	218,656 (35%)	44,243 (16%)	259,362 (53%)	189,625 (52%)	139,470 (47%)	882,869 (40%)
Urban	60,243 (32%)	52,212 (8%)	51,449 (19%)	42,194 (9%)	21,928 (6%)	2,760 (1%)	230,788 (10%)
Wetlands	36,338 (20%)	164,355 (27%)	59,571 (22%)	76,821 (16%)	66,800 (18%)	59,678 (20%)	463,563 (21%)
Forest	30,264 (16%)	74,857 (12%)	65,136 (24%)	41,586 (9%)	32,591 (9%)	68,578 (23%)	313,012 (14%)
Rangeland	2,005 (1%)	26,012 (4%)	25,270 (9%)	33,489 (7%)	48,284 (13%)	20,223 (7%)	155,283 (7%)
Barren	3,419 (2%)	2,842 (1%)	1,420 (1%)	3,733 (0%)	3,588 (1%)	2,471 (1%)	17,473 (1%)
Water	21,796 (12%)	81,082 (13%)	23,885 (9%)	30,022 (6%)	4,299 (1%)	1,492 (1%)	162,576 (7%)
Total	185,578 (100%)	620,016 (100%)	270,974 (100%)	487,207 (100%)	367,115 (100%)	294,672 (100%)	2,225,562 (100%)

Point and Nonpoint Sources of Pollution in the Watershed

Point sources of pollution are defined as discharges to surface and ground waters where discrete measures of water flow and water quality may be taken. In the Kissimmee Watershed planning area, domestic wastewater treatment and Industrial waste facility discharges are considered point sources, as shown in **Table B-3**. Domestic wastewater and industrial waste facilities in the planning area are regulated by the FDEP.

Table B-3. Permits in the Kissimmee Watershed.

Permit Type	Permit Agency	Total Sources	Permit Activity
Point Sources			
Industrial Wastewater	FDEP	95	Industrial Treatment Systems
Domestic Wastewater	FDEP	130	Private and Municipal Wastewater Facilities
Petroleum Contaminate Sites	FDEP	841	Gas Stations and Storage Tanks
Nonpoint Sources			
Dairies	FDEP	15	Dairy Farms BMPs
Works of the District Permits	SFWMD	442	Agricultural, Industrial, Commercial, NPS BMPs
Surface Water Management Permits	SFWMD	2,183	Stormwater Management Systems
Waste Disposal Sites	FDEP	47	Landfills

Nonpoint source pollution is usually associated with land use activities that do not have a single discrete discharge point. These pollution sources are usually delineated into rural and urban. Rural nonpoint sources include storm water runoff and are associated with agricultural activities. Urban nonpoint sources are also primarily conveyed by storm water and contain pollutants associated with urban land use.

Management Strategies for Restoration and Protection of the Water Body to Class III or Better Surface Water Quality Status

Most of the watershed is classified as Class III (fishable, swimmable) waters and several waterbodies within the watershed are designated Outstanding Florida Waters by the state of Florida.

Water management planning efforts in the Kissimmee Watershed planning area include a variety of interrelated studies and activities, in both the public and private sectors. Each plan or study addresses unique water management issues while maintaining close relationships with water supply planning, as shown in **Table B-4**. The related efforts with the most significant influence on the implementation of the Kissimmee Basin Water Supply Plan include the establishment of Minimum Flows and Levels (MFLs) to several lakes in the Kissimmee Watershed. Another ongoing effort that will help to preserve the

water body is the establishment of Total Maximum Daily Loads on the river and several lakes in the Kissimmee Watershed.

Table B-4. Kissimmee Watershed Related Water Management Planning Efforts.

Study	Scope/Primary Goal	Relationship to KB Water Supply Plan	Timeframes
KB Water Supply Plan	Adequate and reliable water supply	N/A	Update 2005
Kissimmee River Restoration Project	Environmental restoration of Kissimmee River floodplain, improved surface water quality.	Changing deliveries to Lake Okeechobee	2015
Kissimmee Basin Minimum Flows and Levels (MFLs)	Prevent significant harm to the water resources and ecology of surface water resources in the Kissimmee Watershed	MFLs will more clearly define the quantity of water available for consumptive uses. Recovery or prevention strategy has potential to alter future water management activities, including use of water resources in the Kissimmee Watershed	2004-2006
Kissimmee Basin Total Maximum Daily Loads (TMDLs)	Prevent significant harm to the water quality and ecology of surface water resources in the Kissimmee Watershed	TMDLs will set the maximum pollutants loads that the water body can take to achieve water quality standards	2005-2011

Kissimmee River Restoration Project

Project History and Overview

In 1948, Congress authorized the U.S. Army Corps of Engineers to initiate construction of the Central & Southern Florida (C&SF) Project for flood control and protection. This was in reaction to the drought of 1944-1945 and a major hurricane in 1947 that caused extensive flooding in the Kissimmee Watershed and illustrated the inadequacy of the basin's existing water control system. In 1954, Congress specifically authorized the Kissimmee River portion of the project which was planned and designed from 1954 to 1960. Between 1962 and 1971, the Kissimmee River was channelized and transformed into a series of impounded reservoirs (Pools A-E). Inflow from the upper basin was regulated by six water control structures (S-65s). Water control structures and canals were built in the upper lakes region to allow regulation of water flow within and between the lakes.

The objectives of the C&SF Project were to provide flood protection to the Kissimmee Upper Basin, convert floodplain wetlands to usable agricultural lands and reduce flooding impacts associated with major storm events. Upon completion, the project was successful at meeting its objectives, however, it was realized that the draining of the floodplain wetlands had significantly impacted fish, bird and other wildlife resources in the region. Channelization drained two-thirds of the historic floodplain habitat and

excavated and/or filled one-third of the historic river channel. This action drastically reduced wintering waterfowl, wading bird and game fish populations, and significantly damaged ecosystem functions. Channelization also resulted in a reduction in the nutrient assimilative capacity of the river's floodplain and loss of aesthetic qualities inherent in a natural meandering river system.

The restoration project evolved over the years from extensive work performed by the USACE, SFWMD and a variety of other interests in Florida and throughout the nation. The 1992 Water Resources Development Act authorized the Kissimmee River Restoration Project, including the headwaters revitalization component, tying the headwaters benefit to the Kissimmee River Restoration project. Also authorized was a 50-50 cost sharing agreement between the state and federal government for the total cost of the project. A Project Cooperation Agreement between the two agencies was executed on March 22, 1994.

The goal of the restoration project is to restore the ecological integrity of the Kissimmee Watershed through the reestablishment of an estimated 40 square miles of river/floodplain habitat, 28,000 acres of wetland and 43 continuous miles of meandering river channel.

The Kissimmee River Project consists of both structural and nonstructural modifications, and acquisition of approximately 110,000 acres of land. The total cost of the project is estimated to be approximately \$578 million.

The restoration project reestablishes inflows from Lake Kissimmee to provide flow velocities and volumes similar to the ones that existed prior to channelization; backfills 22 continuous miles of the C-38 canal in Pools B, C and D; removes 2 water control structures and locks (S-65B and S-65C); recarves approximately 9 miles of river channel; acquires approximately 110,000 acres of land; backfills local farm ditches; and degrades local farm levees.

The ground breaking for construction of the restoration project was April of 1994 with the backfilling of 1000 feet of the C-38 canal in Pool B. Restoration began in the Upper basin in 1997 with improvements made to the S-65 structure, operation and maintenance dredging of the C-35 canal and widening of the C-36 and C-37 canals. Restoration in the lower basin began in June of 1998 with degrading of the MacArthur levee, backfilling of local farm ditches and degrading of local farm levees. Phase I backfilling in Pool C began in June 1999 and was completed in February 2001. The S-65 B structure was demolished in June 2000.

Historic Conditions

The historic Kissimmee River meandered approximately 103 miles within a 1–2 mile wide floodplain. The floodplain was approximately 56 miles long and fell an average of .3 feet in elevation per mile along the river channel. The river was comprised of a primary channel and a complex system of interwoven secondary channels and/or braids.

Under historic conditions, river flows generally exceeded 250 cfs 95 percent of the time. The river moved very slowly, with normal river velocities averaging less than two feet per second. Wetland, wildlife, waterfowl, fisheries and other biological components were once part of an integrated and resilient river floodplain ecosystem. A fluctuating hydroperiod, along with the undulating topography of the floodplain, a meandering river channel, oxbows and natural discontinuous levees, enhanced and maintained habitat diversity, including a mosaic of intermixed vegetation and other complex physical, chemical and biological interactions and processes.

Early flooding conditions in the Kissimmee Watershed were the result of runoff accumulation on the flat lands of the basin and the subsequent rise of lake levels within the Upper Basin, which remained at high levels because of poor outlet capacity.

Channelization Impacts

The physical effects of channelization, including alteration of the system's hydrologic characteristics, largely eliminated river and floodplain wetlands and degraded fish and wildlife values of the Kissimmee River ecosystem (Toth 1993). The meandering river was transformed into a 56-mile-long, 30-feet-deep, 300-feet-wide canal. Excavation of the canal and deposition of the resulting spoil eliminated approximately 35 miles of river channel and 6,200 acres of floodplain wetland habitat. Transformation of the river-floodplain ecosystem into a series of deep impoundments drained much of the floodplain (Toth 1995), eliminated historical water-level fluctuations, and greatly modified flow characteristics. Approximately 26,000–31,000 acres of pre-channelized floodplain wetlands were drained, covered with spoil, or converted into canal. The floodplain at the lower end of each pool remained inundated, but pre-channelization water level fluctuations were eliminated. Low-and no-flow regimes in remnant river channels resulted in encroachment of vegetation, especially floating exotics (such as *Pistia stratiotes* [water lettuce] and *Eich-hornia crassipes* [water hyacinth]) to the center of the river channel. Senescence and death of encroaching vegetation covered the shifting sand substrate of the historic channel with thick accumulations (up to 3 feet) of organic matter, greatly increasing the biological oxygen demand of the system (Toth 1990).

River channelization and degradation of the floodplain led to severe impacts on the system's biological components. By the early 1970s, floodplain utilization by wintering waterfowl declined by 92 percent (Perrin et al. 1982). Wading bird populations, a highly visible component of the historic system, declined and were largely replaced by *Bubulcus ibis* (cattle egret), a species generally associated with upland, terrestrial habitats (Toland 1990). Low-and no-flow regimes in the canal and remnant river channels resulted in chronically low dissolved oxygen levels and sport fish species, like largemouth bass were largely replaced by species tolerant of low dissolved oxygen regimes (such as *Lepisosteus platyrhincus* [Florida gar] and *Amia calva* [bowfin]). Rheophylic invertebrate taxa typical of many large river systems (for example, hydrosychid caddisflies and heptageniid mayflies) were replaced by species common to lentic systems (for example, *Chaoborus*, *Pelocoris* [Hemiptera:Naucoridae], and hydrophilid beetles) (Toth 1993). Stabilized water levels and reduced flow also eliminated river-floodplain interactions. Influx of organic matter, invertebrates, and forage fishes to the river from the floodplain

during periods of water recession was eliminated. Stabilized water levels also largely eliminated adult spawning and foraging habitat, as well as larval and juvenile refuge sites for fish on the floodplain (Trexler 1995).

Restoration of Hydrology

The Kissimmee River Restoration Project will provide flows to the restored Kissimmee River approaching the duration and variability of discharges, which occurred before the river was channelized. Minimum flows are expected to exceed 250 cubic feet per second (cfs) about 95 percent of the time, compared to the current flows, which are less than 30 cfs 50 percent of the time. Maximum velocities for the restored channel will be between 0.8 and 1.8 feet per second during bankfull stage. The stage recession rate should rarely exceed one foot per month. Overbank flooding will occur within the restored area when discharges exceed 1,400 - 2,000 cfs.

Based on historic stage-duration hydrologic data and expected future flows from Lake Kissimmee, overbank flooding of the river valley in a typical year will start in July or August, and reach a peak from September through November and gradually recede from December through June. Very wet or dry years and storm events will vary this pattern.

Restoration Studies on the Water Body

Degradation of the Kissimmee River's ecosystem, wetlands, and water quality caused by channelization of the Kissimmee River has been the subject of numerous federal, state and local studies over the past thirty years.

Local involvement in environmental restoration began in the early 1970 soon after channelization was complete. A 1972 USGS report (Final Report on the Special Project to Prevent Eutrophication of Lake Okeechobee) concluded that Lake Okeechobee was eutrophying at an accelerated rate due to channelization of the Kissimmee River and the pumping of agricultural runoff from the EAA into Lake Okeechobee. In reaction to this, the state began a series of initiatives aimed at getting Congress to authorize a feasibility study for the restoration of the Kissimmee River to its prechannelization state.

Congress authorized the USACE to conduct the first feasibility study for the restoration of the Kissimmee River in 1978. This was followed in 1984 by Florida Governor Graham adopting the Seven Point Plan which laid the groundwork for state studies on restoration and made the South Florida Water Management District the lead agency for implementation of the restoration project in Florida. Shortly after, the SFWMD initiated the Phase I demonstration project.

Nonfederal Studies

In 1984–1985, a demonstration project was constructed by SFWMD. Three weirs and a flow through marsh were constructed in Pool B for a total project cost of \$1.4 million. The weirs diverted flows from the C-38 canal into the historic remnant river

channels. Their purpose was to evaluate their use in restoring more natural hydrology while still maintaining flood protection. The weirs demonstrated that flood protection could be maintained and indicated that restored flow would revitalize the remnant river channels by flushing out floating vegetation and accumulated organic deposits and restoring natural sedimentation processes. The purpose of the flow through marsh was to evaluate the viability of the floodplain's seedbank. The marsh was reflooded and the former wetland that had been converted to pasture quickly reverted to wetlands once appropriate hydroperiods were reestablished.

In October 1988, the SFWMD conducted the Kissimmee River Restoration Symposium, where the state's Kissimmee River Environmental Restoration goals were formulated. The symposium ecological review panel concurred with participating scientist that reestablishment of lost ecological values would be achieved only with a holistic, ecosystem restoration perspective.

In a report dated June 1990, the SFWMD proposed a plan to restore the ecological integrity of the Kissimmee River using an ecosystem approach. This plan was called the SFWMD's Alternative Plan Evaluation and Preliminary Design Report. The objective of the plan was to achieve environmental restoration goals while meeting flood control, navigation, water supply and water quality needs. The restoration goal was to reestablish an ecosystem capable of supporting and maintaining species diversity, distribution and quantity representative of the natural habitat of the river basin. The report establishes system hydrology and floodplain hydraulics as key factors in environmental restoration. Four basic alternatives were considered in the report: Weiring, Plugging, and Level I and Level II Backfilling. Only the Level II Backfilling Plan was adequate as meeting the minimum restoration criteria, by restoring 24,000 acres of floodplain and 52 miles of river channel, resulting in a restored 35 square miles of river/floodplain ecosystem. The Level II Backfilling Plan was SFWMD's recommended restoration alternative for the Kissimmee River.

Federal Studies

In response to resolutions by the Committee on Public Works and Transportation of the United States House of Representatives, and the Committee on Environment and Public Works of the United States Senate (dated April 25, 1978), the USACE studied alternative plans for restoration of the Kissimmee River. The study report was submitted to the Assistant Secretary of The Army for Civil Work in 1985. The study concluded that although project modifications responsive to environmental concerns could be constructed, none provided positive net contributions to the nation's economic development. Accordingly, the Chief of Engineers recommended that no federal action be undertaken and that report information be used by nonfederal interests in determining long-range solutions to water and related land resource problems in the basin.

Under authority of Section 1135 of the Water Resources Development Act of 1986, the Jacksonville District Engineer initiated feasibility studies of the plan for revitalization of the Upper Kissimmee Basin. The study was later called the Headwaters Revitalization Project and would consist of changes in lake operation schedules, channel

enlargements, modification of existing water control structures, and as a result of higher lake water levels, acquisition of 18,500 acres of land by the local sponsor, SFWMD.

A second federal feasibility study, which was authorized in the Water Resources Development Act of 1990, was also assembled by the USACE. The feasibility study was also an Environmental Impact Statement (EIS). The congressional authority directed that the study be based on implementing the SFWMD's Level II Backfilling Plan. Therefore there was no need to develop new planning objectives or alternative plans.

As a result of these and other studies, two restoration plans were developed, that, when implemented together, will restore environmental values throughout the Kissimmee Watershed. The two components are the Upper Basin Headwaters Revitalization and the Lower Basin restoration of the Kissimmee River.

Maintenance of the Water Body after Restoration

A basic premise of the Kissimmee River Restoration Project is to reestablish the natural hydrologic processes that shaped and maintained the ecological integrity of the historical river and floodplain ecosystem. The reestablishment of historical hydrologic characteristics is expected to drive the restoration process, and ensure the return and preservation of the system's environmental values. Thus, the restored ecosystem is expected to be largely self-managing by natural hydrologic processes. However, there are at least two potential management concerns for the restored system, invasive/exotic vegetation and public use. Although existing invasive and exotic plant species in the Kissimmee River system, including water lettuce, water hyacinth and Brazilian pepper are expected to be largely eliminated or at least controlled by the reestablishment of historical discharge characteristics and hydroperiods, some minor control efforts will likely be needed. Of greater concern is the Old World climbing fern (*Lygodium microphyllum*), which is a recent invader of the system and seems capable of persisting in the restored system. Efforts to eradicate or control this species are underway and may be critical for achievement of restoration. The other potential management issue relates to the use/exploitation of the restored system and associated resources. The need for management of public use, such as airboating and hunting pressure will be based on information derived from the projects ongoing ecological evaluation program.

Restoration Project Status

Planning, engineering, design and construction have been initiated. A test backfilling project was initiated in 1994 and completed in September 1994. The restoration project is divided into the following five restoration elements:

1. The Restoration Evaluation Program
2. Projects and Real Estate Needed to Implement the Revised Headwaters Regulation Schedule
3. Phase I Backfilling Projects
4. Phase II/III Backfilling Projects

5. Phase IV Backfilling Projects

The Phase I Backfilling was completed in February 2001. The restoration project is underway and expected to continue until 2012. The Restoration Evaluation Program is designed to evaluate the success of the project in meeting the established restoration goals, to provide for continuous, scientifically informed fine-tuning of the construction and adaptive management of the recovering and restored ecosystem.

Project Schedule

Kissimmee River Restoration efforts began in 1991 with specific project tasks in the Upper Basin and Phase I portions of the project. In 1994, the Scientific Restoration Evaluation Program began. It is scheduled to continue for four years past the completion of the final phase of construction. Construction completion is projected for 2012. The major project phases for the Kissimmee River Restoration effort are reflected in **Figure B-3**.

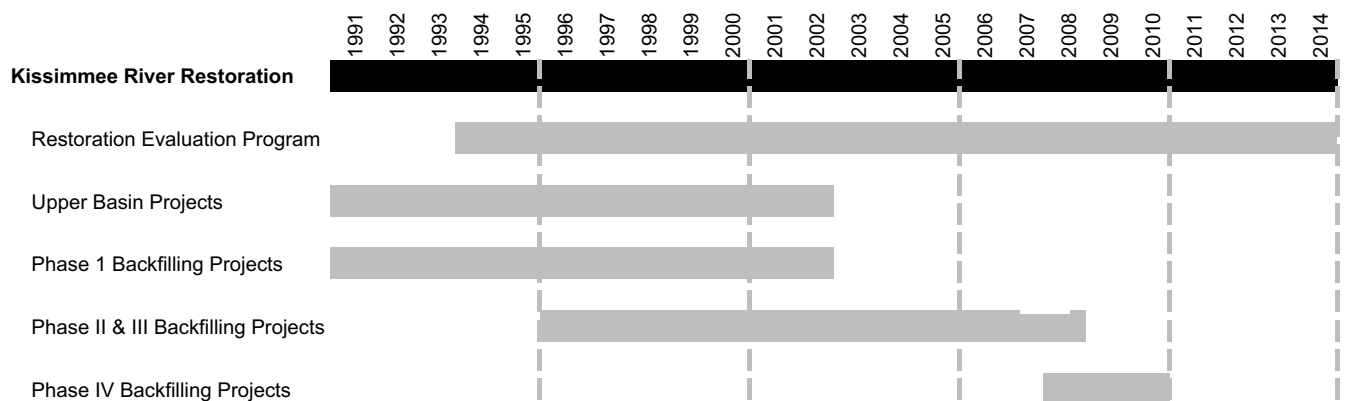


Figure B-3.Kissimmee River Restoration Project Schedule.

Land Acquisition for Kissimmee River Restoration

The SFWMD has been purchasing lands for the Kissimmee Restoration Project since the mid-1980s. Lands have been purchased in the Kissimmee Chain of Lakes in order to facilitate the implementation of the new regulation schedules in the lakes. Raising the lake regulation schedules will allow the SFWMD to store more water in the lakes, making it available for release to the Kissimmee River. The additional water is necessary in order to provide a year round flow when the river is restored. Lands have been purchased in the lower basin as a requirement for the restoration of the floodplain and re-establishment of the remnant river segments.

Fee title acquisition is required for 75 percent of the project lands. The remaining 25 percent are required for temporary, construction, flowage or access easements. The

USACE set the defining criteria for fee versus easement acquisition at the inception of the project. That criterion is a function of the topographic elevation of the land parcel. In the lower basin, properties measuring at or below the five-year flood line can be acquired in fee and properties measuring between the five and 100-year flood line can be acquired as a flowage easement. In the Upper Basin, properties between the 52.5 and 54 foot elevation can be acquired in fee. Table B-5 shows approximate land acquisition needs and approximate acquisition status for the Kissimmee Restoration Project.

Table B-5. Kissimmee River Restoration Approximate Real Estate Acquisition Information.

Area	Acreage Needed	Acreage Obtained	Remaining Acreage
Upper Basin	35,000	29,000	6,000
Lower Basin	74,000	61,000	13,000
Total	109,000	90,000	19,000
Percent of Total	N/A	82.6	17.4

There are no lands that have been acquired for the Kissimmee Restoration Project as a function of the need to protect or recharge groundwater.

Goals and Performance Measures

The Kissimmee River Restoration Project was designed to restore ecological integrity to the Kissimmee River.

Focus Areas: Flood Protection and Natural Systems

Performance Indicators:

FLOOD PROTECTION

Objective 3: Promote nonstructural approaches to achieve flood protection and protect and restore the natural features and functions of the floodplain.

Measures: Percentage of total project acres (75,000) in Kissimmee Watershed floodplain mitigated or acquired.

Estimated FY 2003	Target FY 2004	Target FY 2005
88%	100%	--

Percentage of total project acres (35,000) around lakes Tiger, Cypress, Hatchineha and Kissimmee acquired in order to implement Headwaters Revitalization.

Estimated FY 2003	Target FY 2004	Target FY 2005
85%	100%	--

NATURAL SYSTEMS

Objective 2: Restore the integrity and function of water resources and related natural systems to a naturally functioning condition.

(Cumulative) Measures:

Number of 8 hydrologic / geomorphologic expectations met.

Estimated FY 2003	Target FY 2004	Target FY 2005
4	4	8

Number of 5 water quality expectations met.

Estimated FY 2003	Target FY 2004	Target FY 2005
2	2	3

Number of 7 invertebrate expectations met.

Estimated FY 2003	Target FY 2004	Target FY 2005
0	1	1

Number of 8 avian and endangered species expectations met.

Estimated FY 2003	Target FY 2004	Target FY 2005
2	2	2

Number of 3 fish expectations met.

Estimated FY 2003	Target FY 2004	Target FY 2005
0	0	0

Number of 10 vegetation (including algae) expectations met.

Estimated FY 2003	Target FY 2004	Target FY 2005
1	1	2

Number of 2 herpetofaunal expectations met.

Estimated FY 2003	Target FY 2004	Target FY 2005
0	0	2

Expenditures:	Actual FY 2002	Adopted FY 2003	Change FY 2002– >2003	Proposed FY 2004	Target FY 2005
	\$58.3M	\$58.7M	1%	\$40M	\$40M

Significant Changes in Expenditures: None.

FY 2003 Key Action Steps:

- KRR Land acquisition
- KRR Mitigation in lieu of land acquisition
- KRR Evaluation Program (KRREP)

Conclusions

The Kissimmee River Restoration Project is a monumental project in many ways. It is the first attempt at restoring a river ecosystem. It is the culmination of cooperative efforts between many, state, federal and local organizations that have worked together for over three decades to make this project happen. This ambitious project represents the culmination of more than 25 years of research, design and public activism. The scientific approach towards the comprehensive evaluation of the restoration program sets the Kissimmee River Project apart from all other restoration efforts. Restoration benefits are expected to begin immediately and continue for many generations to come.